

U.S. Embassy Kabul's Guide to Earthquake Preparedness and Survival



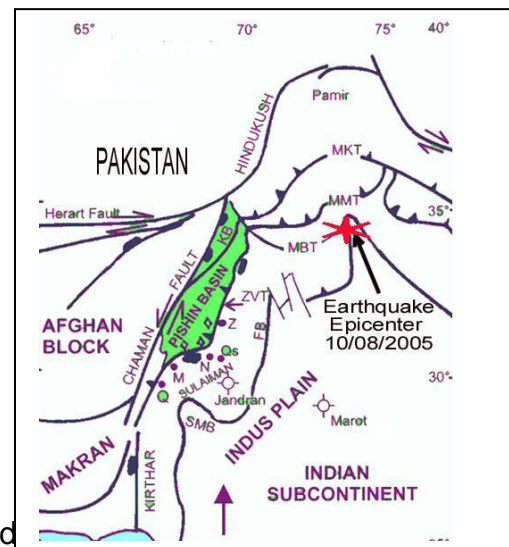
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Earthquake Preparedness and Survival

For U.S. Citizens Residing in Afghanistan

The area surrounding Kabul, Afghanistan has been the site of numerous earthquakes and other natural disasters. Parts of central, northern and northeastern Afghanistan are prone to seismic waves due to their proximity to seismic fault lines which run through the Hindukush Mountain Region and include the Chaman fault system. This system extends along Pakistan's frontier with Afghanistan. It begins near Kalat in the northern Makran range, passes near Quetta and extends along the border in a north-northeastern direction to Kabul - after branching off to form the Main Karakoram Thrust (MKT) system. The October 8, 2005 earthquake in northern Pakistan, which resulted in the deaths of approximately 75,000 individuals, occurred near this active seismic zone. This natural vulnerability to the city's infrastructure has been exacerbated by substandard construction, weak essential infrastructure and widespread lack of awareness of the risks of earthquakes and other natural disasters. According to the Ministry of Urban Development, Kabul and other major cities around the country suffer rapid and unregulated urbanization with mushrooming substandard housing.



Many of the estimated four million residents of Kabul depend on these services for water, electricity and medical services. Any extended disruptions in access to these services could prove catastrophic and directly impact operations at the U.S. Embassy in Kabul.

The key to surviving a natural disaster is planning. The following information will help you plan for a major disaster. Remember it is important to involve your entire community in the planning. An earthquake or other natural disaster can occur without warning; take

steps now to minimize their effect on our community.

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DEVELOPING AN EMERGENCY PLAN

Developing an emergency plan is each organization and family's responsibility. The following information should help you develop an earthquake plan to better prepare you in the case of emergency.

1. Discuss individual duties, evacuation plans, etc. Rehearse the plan on a regular basis, making sure the serious intent of the exercise is understood. Going through the planning process itself may help you to respond calmly during an emergency.

2. Sketch a floor plan of your residence, identifying main and secondary exits (if available) and safe and dangerous areas for each room. An example of a floor plan is included in this document (see page 10). Mark safe spots (under doorways, in an inside corner of room, etc.) and dangerous spots (next to windows, tall furniture, etc.) in each room. Doorways in masonry (brick, clay tile, etc.) walls should not be considered safe because the masonry directly above the door may fall. The best places to be during an earthquake are beneath supported archways, against inside walls and corners, or in doorways. Stay away from windows, hanging objects, mirrors, fireplaces, bookshelves, or tall unsecured furniture. Do not crawl under desks or beds as they could crush you if a heavy load falls on top of them. Reinforce this knowledge, by physically placing yourself in safe locations during drills.

3. Identify potentially dangerous items such as:

- Tall and heavy furniture that can topple (e.g. bookcases, cabinets, or modular wall units).
- Appliances which could move enough to break electrical connections.
- Hanging plants which could swing free from hooks.
- Heavy pictures frames or mirrors. **DO NOT HANG ANYTHING ON A WALL OVER THE BED!**
- If in a high-rise apartment building, check latches on kitchen or other cabinets which will not hold the doors closed during an earthquake.
- Breakable or heavy objects that are on high or open shelves.
- A masonry or brick wall structure that could collapse and fall through an unsupported roof.
- Flammable liquids, such as painting or industrial cleaning products, should be stored in a safe location.
- Avoid storing these products in glass containers and never store them indoors.

STAY AWAY FROM ALL POTENTIALLY DANGEROUS ITEMS DURING AN EARTHQUAKE! FOLLOW THE SUGGESTIONS OF THE RESIDENTIAL HAZARD REDUCTION LIST ON PAGE 6 OF THIS DOCUMENT TO FIND WAYS TO REDUCE THE RISK OF POTENTIALLY DANGEROUS ITEMS BEFORE THERE IS AN EARTHQUAKE!

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DEVELOPING AN EMERGENCY PLAN continued...

4. Keep a hand-held radio charged and familiarize yourself with how to use it.
5. Practice how to turn off electrical and water mains if you have them inside your living quarters.
6. Practice plugging drains to prevent sewage back-up.
7. Learn how to shut off utilities - gas, water and electricity (where applicable). Mark the location of shut-off valves and switches on the floor plan. Review shut-off procedures with colleagues and neighbors. Locate and verify the operability of fire extinguishers and smoke detectors.
8. It is important to remember that regular services such as utilities, communication, and transportation may be disrupted for several days. Plan now to be self sufficient for at least 72 hours. Have on hand the following emergency supplies:
 - **Flashlights with spare batteries.** Always keep a flashlight close by your bed. Candles and matches should be available, but should be stored in a safe place and used only when it is certain that no gas leaks or other flammable substances are present.
 - **Portable commercial radio with spare batteries.** A commercial band AM/FM radio will be your best source of information.
 - **First Aid Kit.** Familiarize yourself with first aid procedures and first aid kit locations. Have a first aid book such as Standard First Aid & Personal Safety by the American Red Cross. Contact the health unit for information on how to put together your own useful first aid kit. (Know your route of travel and where the nearest medical office / center is located.) If traveling, know the route to nearest hospital / emergency center.
 - **Fire extinguishers.** Know the locations of fire extinguishers for small fires. Some extinguishers are good for only certain types of fires: electrical, grease, or gas. The embassy-supplied Class C extinguisher is designed to be used safely on any type of fire: paper/wood, electrical or gas.
 - **Food.** Keep a supply of non-perishable food on hand (i.e. Military MREs) should a catastrophic event occur. Have a sufficient supply of canned or dehydrated food, water, and canned juices to last for 72 hours. Dried cereals, fruits, and non-salted nuts are a good source of nutrition.
 - **Charcoal grill and charcoal.** If you have frozen meat and vegetables in the freezer, be prepared to start cooking these within 24 hours after the electricity is off.
 - **Special items.** Have at least a week's supply of any medications and special foods.

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DEVELOPING AN EMERGENCY PLAN continued...

- **Emergency water.** This is extremely important since water mains may be broken, and delivery trucks may not be able to deliver water due to supply lines being affected by earthquake damage such as debris filled streets. It is recommended that you maintain a minimum of three days' supply of bottled water per person in your residence. Estimate two gallons of bottled water per day per residence member. Periodically replace your stored water supply to keep it fresh. Water purification tablets can be essential and are require minimal storage space. Obtain plastic water storage containers or other means of potable water storage.
- **Tools:** Where necessary, have a pipe wrench and an adjustable wrench available for turning off gas and water mains.
- **Suitable clothing and thick-soled shoes should be stored** near your bed.
- **Blankets or sleeping bags** and a plastic ground cloth.
- **Sanitation supplies** - Toilet tissue, baby wipes, plastic bags, anti-bacterial soap, hand sanitizers, buckets, and powdered chlorine or lime for emergency sanitation purposes should the sewers be blocked.
- **Tools** – Consider creating an earthquake dig-out kit equipped with wrenches, hammers, pliers, shovels, screwdrivers, plastic sheeting, axe & pry bar, ladders, heavy gloves, rope, and wire.
- **Fuel** - If your house or office area is equipped with a generator, keep the fuel tank full.
- **Cash** - Banks may be closed for some time.

For more information on preparing for national disasters, please view the following websites for helpful tips:

- ✓ http://travel.state.gov/travel/tips/emergencies/emergencies_1207.html
- ✓ <http://www.ready.gov/earthquakes>
- ✓ <http://www.fema.gov/hazard/earthquake/>

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RESIDENTIAL EARTHQUAKE HAZARD REDUCTION CHECKLIST

Each person can make an individual contribution to the seismic safety of their immediate environment. Heavy, unstable items can lead to injuries by falling or being knocked over during earthquakes. Exit routes should be free from obstructions. Part of planning for an earthquake includes inspecting your surroundings for items which you can secure. If the hazard cannot be easily secured, move either yourself or the hazard to a safer location (i.e. move bed away from large window). The following checklist includes many of the items which need to be secured; it should be supplemented with your own inspections and judgment.

Tall, heavy furniture such as bookcases should be secured to prevent sliding or tipping, perhaps by using metal L-brackets. To prevent rolling, remove castors or wheels.

Flammable or hazardous materials such as gasoline and paint thinner should be stored in covered containers, on a low shelf, floor, or in a remote location.

Cabinet doors - make sure latches are strong enough, especially in the kitchen areas of apartments to prevent contents from falling out. You may want to consider installing safety latches.

Heavy picture frames and mirrors - make sure these wall hangings can't fall on people at desks or in beds. Move beds and desks away from large glass windows if possible.

Hanging plants - secure using closed hooks, so they cannot fall.

Storage racks and shelves - should be braced (where possible) and bolted to the floor and walls. Secure contents so they can't slide off.

Computer equipment and copy machines in office spaces - should be braced to prevent sliding or falling.

Water heaters and compressed gas cylinders: Assure flexible connections for water and gas heaters. Use metal straps at the top and bottom of the water heater which are bolted using expansion bolts to a masonry wall, or lag bolts to a wood stud wall. Block in the space between water heater and wall to prevent rocking.

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HOW TO RIDE OUT AN EARTHQUAKE

During a major earthquake, you may experience shaking that starts out gently and within a second or two grows violent and knocks you off your feet; or, you may be jarred first by a violent jolt, as though your house was hit by a truck. A second or two later you'll feel the shaking, and, as in the first example, you'll find it very difficult (if not impossible) to move from one room to another. During the shaking try to remain calm. Do not do things that will upset or panic others such as shouting or screaming.

- ✓ If you are indoors, stay there. Stand under a door frame, archway, or near an inside wall or corner. COVER YOUR NOSE WITH A PIECE OF CLOTH to filter as much dust as possible. Remember to stay clear of windows, bookcases, cabinets, and mirrors, until the shaking stops. Do not hide underneath tables or beds.
- ✓ If you are in a high-rise apartment building, stay in the building on the same floor. Do not use the elevator. A power failure or elevator equipment failure could leave you trapped between floors. Be careful with stairs, they may be weakened. As a general rule, DO NOT RUN OUT OF A BUILDING. Falling debris around a building is a common hazard. Seek safety where you are, wait until the earthquake is over, then, if evacuation is necessary, leave the building.
- ✓ If you are using a gas stove, turn off the stove at the first sign of shaking and quickly move to a safe place under a door frame, archway, or corner.
- ✓ If you are outside, get into the open, away from buildings, trees, walls, or power lines.
- ✓ If you are in a crowded public building, do not rush to the doorways, since other people will have the same idea. Move away from display shelves containing objects which may fall.
- ✓ If you are in your car, pull to the side of the road and stop. Do not park under overpasses (falling concrete) or power lines (electrical shock hazard) or near utility poles. Stay in your car until the earthquake is over.
- ✓ If you are inside a car and power lines have fallen on the vehicle, do not attempt to exit the vehicle. If you are outside a car and power lines have fallen on the vehicle, do not touch or attempt to enter the vehicle.
- ✓ If the earthquake has been severe, do not attempt to cross bridges or overpasses that may have been damaged.
- ✓ Do not be surprised if the electricity goes out, and car and building alarms or sprinkler systems activate.

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WHEN the SHAKING STOPS

After the earthquake ends, please follow the below guidelines:

CHECK for injuries. Give first aid to those in need. Do not move seriously injured people unless they are in an immediate danger of injury or death should they remain in their present location.

TURN ON your battery-powered commercial radio (or car radio) for damage reports and information. If you need to leave your residence, make sure that you have communication devices such as your fully-charged radio and cell phone with you at all times.

TAKE any injured person to the nearest emergency center. Be prepared to have long waits as mass casualty treatment areas will be quickly inundated. Use your best judgment to treat cuts, sprains, etc. until first responder personnel have taken care of severe cases.

If trapped under debris:

- ✓ Do not light a match
- ✓ Do not move about or kick up dust.
- ✓ Cover your mouth with a handkerchief or clothing.
- ✓ Tap on a pipe or wall so rescuers can locate you. Use a whistle if one is available. Shout only as a last resort. Shouting can cause you to inhale dangerous amounts of dust.

WEAR thick-soled shoes to protect against injury from fallen debris and broken glass.

PUT OUT small fires that you can safely extinguish when possible. Do not attempt to extinguish large fires and do not endanger yourself while trying to fight a fire. Instead, immediately leave the building.

CHECK gas, water, electrical lines, and appliances for damage. If you smell gas, or hear a blowing or hissing noise, open a window and quickly leave the building.

SWITCH OFF electrical power if there is damage to your residences electrical wiring. Do not touch downed wires or broken appliances.

CLEAN up spilled medicines, bleaches and flammable liquids. Leave the area if you smell gas or fumes from other chemicals.

CHECK to see that sewer lines are intact before using the toilet. **PLUG THE BATHTUB AND SINK DRAINS TO PREVENT SEWAGE BACKUP.**

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WHEN the SHAKING STOPS continued...

CHECK closets and cupboards. Open doors cautiously. Beware of objects falling from the shelves.

If you must leave your living area for work or safety:

- ✓ **POST** a large sign on the front door indicating your destination, your physical condition, the names of individuals who are accompanying you and their physical conditions. If all members of your residence are safe and accounted for, post a sign on the door for security and rescuers that no emergency help is required.
- ✓ **CARRY**, at minimum, equipment/supplies listed below.
 - Medicine and first aid kit.
 - Flashlight, radio and batteries.
 - Passports and cash.
 - Food, sleeping bags/blankets and extra clothing.
 - Hand-held radio and phone.

REMEMBER that aftershocks are common. Move into a safe area of your residence. Remove all potentially dangerous items that may fall. Gather and keep all your emergency supplies and your phone and handheld radio next to you.

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A full-page sheet of white graph paper with a uniform black grid pattern. The grid consists of small squares covering the entire area. There are no margins, text, or other markings on the page.

A full-page sheet of white graph paper with a light gray grid. The grid consists of small squares, approximately 1 cm by 1 cm each. There are 20 columns and 20 rows of squares, creating a total of 400 small squares. The grid lines are thin and evenly spaced.

Hazard = Hazardous Area Due to _____

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EARTHQUAKE EMERGENCY INSTRUCTIONS FOR WARDENS

Please familiarize yourself with your living and work areas for which you are responsible. If you experience shaking, please follow the measures described earlier. After assessing your and your colleagues' situation, attempt to call the U.S. citizens who reside in your neighborhood. Take note of those individuals / residences where there was no answer or the phone was not working. After receiving radio guidance that your area is safe from further aftershocks, walk to those office areas / residences and attempt to contact the occupants in person. Please wear sturdy shoes to protect your feet from broken glass and sharp debris. If you cannot contact or locate them, do a visual inspection of the site, but do not enter damaged buildings without assistance. Complete the attached check sheet, and report to the U.S. Embassy's Duty Phone (0700-201-908) any missing U.S. citizens.

WARDEN QUESTIONS

1. Is anyone injured or trapped? Who? Describe the injuries
2. Is there structural damage in your building?
3. Do you have a working cell phone or hand-held radio?
4. Do you have electricity? If not, do you have a generator? With fuel for how long?
5. Do you have water? How long do you think it will last?
6. Do you have food? How long do you think it will last?

WARDEN CHECK LIST

| Name / Address | Injuries / Structural Damage | Radio / Phone | Electricity | Water / # of Days | Food / # of Days | Comments |
|-----------------------|-------------------------------------|----------------------|--------------------|--------------------------|-------------------------|-----------------|
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